Nonpoint Source Pollution Management Program

January 2011

Water Quality Monitoring

Why sample?

Just looking at a lake or stream is not enough when trying to measure water quality. Sampling for specific water quality variables will give you proper insight to the health of a surface water. In turn, land management practices can be evaluated for changes that will positively influence the health of the water body. If a stream sample has results indicating a high fecal coliform count, practices such as; livestock feedlot location, municipal wastewater treatment, and urban runoff should be examined.

What should be sampled for?

Typically, surface water samples are taken for the following variables: Total suspended solids, dissolved oxygen, nitrates, phosphorus, and fecal coliform bacteria. One variable that is becoming more widely used is biological indicators. Biological indicators are the animals and plant life that inhabit a particular surface water. Additional variables may be examined if they are thought to be present or cause a problem.

What will the results mean?

Once samples are taken and have been analyzed by a laboratory, the results must be interpreted. Results are compared to the State Water Quality Standards and individual stream characteristics are taken into consideration. Reports generated from sampling results will list suspected causes of and solutions for excess pollutants that may be found.

How do we proceed from here?

Variables that are shown to be in excess of water quality standards might be addressed by implementing Best Management Practices (BMPs). BMPs are simple, low-cost or no-cost methods of reducing pollution that occurs with runoff. Examples of a BMPs would be contour farming or implementing a used oil recycling program.

For more information about the Nonpoint Source Pollution Management Program contact:
North Dakota Department of Health
918 East Divide Ave, Bismarck, ND 58501-1945
Phone 701.328.5210, www.ndhealth.gov/wq